```
   * * * * * * * * * * * * * * STN  Columbus  * * * * * * * * * * * * * * *

FILE 'HOME' ENTERED AT 11:30:42 ON 26 FEB 2004

=> File caplus
COST IN U.S. DOLLARS                                    SINCE FILE      TOTAL
                                                           ENTRY    SESSION
FULL ESTIMATED COST                                         0.21       0.21

FILE 'CAPLUS' ENTERED AT 11:30:55 ON 26 FEB 2004
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
COPYRIGHT (C) 2004 AMERICAN CHEMICAL SOCIETY (ACS)
```

Copyright of the articles to which records in this database refer is held by the publishers listed in the PUBLISHER (PB) field (available for records published or updated in Chemical Abstracts after December 26, 1996), unless otherwise indicated in the original publications. The CA Lexicon is the copyrighted intellectual property of the American Chemical Society and is provided to assist you in searching databases on STN. Any dissemination, distribution, copying, or storing of this information, without the prior written consent of CAS, is strictly prohibited.

```
FILE COVERS 1907 - 26 Feb 2004  VOL 140 ISS 9
FILE LAST UPDATED: 25 Feb 2004  (20040225/ED)

  This file contains CAS Registry Numbers for easy and accurate
  substance identification.


=>
=> influenza (w) vaccine
         18165 INFLUENZA
             6 INFLUENZAS
         18167 INFLUENZA
                 (INFLUENZA OR INFLUENZAS)
         41841 VACCINE
         42597 VACCINES
         52626 VACCINE
                 (VACCINE OR VACCINES)
L1         803 INFLUENZA (W) VACCINE

=> "HIV infected pateint"
         53432 "HIV"
            85 "HIVS"
         53443 "HIV"
                 ("HIV" OR "HIVS")
        123709 "INFECTED"
             1 "INFECTEDS"
        123709 "INFECTED"
                 ("INFECTED" OR "INFECTEDS")
             7 "PATEINT"
            17 "PATEINTS"
            24 "PATEINT"
                 ("PATEINT" OR "PATEINTS")
L2           0 "HIV INFECTED PATEINT"
                 ("HIV"(W)"INFECTED"(W)"PATEINT")

=> HIV (L) patient
         53432 HIV
            85 HIVS
         53443 HIV
```

(HIV OR HIVS)
95958 PATIENT
426136 PATIENTS
469280 PATIENT
(PATIENT OR PATIENTS)
L3 9861 HIV (L) PATIENT

=> L1 and L3
L4 9 L1 AND L3

=> DIS L4 1- IBIB IABS
YOU HAVE REQUESTED DATA FROM 9 ANSWERS - CONTINUE? Y/(N):Y
THE ESTIMATED COST FOR THIS REQUEST IS 22.87 U.S. DOLLARS
DO YOU WANT TO CONTINUE WITH THIS REQUEST? (Y)/N:Y

L4 ANSWER 1 OF 9 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2003:625762 CAPLUS
DOCUMENT NUMBER: 139:379825
TITLE: Antibody responses and HIV-1 viral load in HIV-1-seropositive subjects immunised with either the MF59-adjuvanted **influenza vaccine** or a conventional non-adjuvanted subunit vaccine during highly active antiretroviral therapy
AUTHOR(S): Iorio, Anna M.; Francisci, Daniela; Camilloni, Barbara; Stagni, Giuliano; De Martino, Matteo; Toneatto, Daniela; Bugarini, Roberto; Neri, Mariella; Podda, Audino
CORPORATE SOURCE: Department of Hygiene, University of Perugia, Perugia, 06122, Italy
SOURCE: Vaccine (2003), 21(25-26), 3629-3637
CODEN: VACCDE; ISSN: 0264-410X
PUBLISHER: Elsevier Science Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English
ABSTRACT:
Objective: To study immunol. and virol. parameters in **HIV**-1-seropos. adults treated with highly active antiretroviral therapy (HAART) for at least 7 mo after immunization with MF59-adjuvanted (FLUAD, Chiron, Siena, Italy) or with non-adjuvanted (AGRIPPAL, Chiron) trivalent **influenza** ***vaccine.*** Design: Blood samples, collected before and after vaccination, were analyzed for the presence of antibodies against the vaccine antigens, for number of CD4+ T lymphocytes and **HIV**-1 RNA levels. Results: Forty-four volunteers received FLUAD and 40 AGRIPPAL **influenza** ***vaccine.*** Thirty days after vaccination both adjuvanted and non-adjuvanted vaccines induced significant increases of anti-influenza virus antibodies. However, antibody titers found in volunteers receiving adjuvanted vaccine were in general significantly higher when compared with those found in the non-adjuvanted vaccine group. The requirements of the European Commission of **influenza vaccine** for a non-elderly adult population were always met by recipients of the adjuvanted vaccine, even in those with the lowest CD4+ cell counts (<200 cells/mmc). The subjects receiving the non-adjuvanted vaccine failed to met these requirements. The CD4+ T lymphocytes and plasma **HIV**-1 RNA levels remained stable in the long term, both in people receiving adjuvanted or non-adjuvanted vaccine. Conclusion: MF59-adjuvanted influenza induced a significant higher immune responses as compared with conventional vaccine in **HIV**-seropos. HAART-treated **patients**. Both vaccines were safe regarding ***HIV*** RNA viral replication and loss of CD4+ T lymphocytes.

REFERENCE COUNT: 39 THERE ARE 39 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 2 OF 9 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2003:192117 CAPLUS

DOCUMENT NUMBER: 138:367393
TITLE: Comparison of the effects of acute Influenza infection and Influenza vaccination on HIV viral load and CD4 cell counts
AUTHOR(S): Skiest, Daniel J.; Machala, Timothy
CORPORATE SOURCE: The University of Texas Southwestern Medical Center, Department of Internal Medicine, Division of Infectious Diseases, Dallas, TX, 75390-9113, USA
SOURCE: Journal of Clinical Virology (2003), 26(3), 307-315
CODEN: JCVIFB; ISSN: 1386-6532
PUBLISHER: Elsevier Science Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English
ABSTRACT:

Purpose: Influenza vaccination is recommended for **HIV**-infected ***patients*** , although the efficacy is not clear. Prior studies have yielded differing results with regard to the effects of influenza vaccination on **HIV** viral load and CD4 cell counts. The effects of acute influenza on **HIV** viral replication and CD4 cell counts have not been well described. We sought to assess the effect of influenza infection and vaccination on **HIV** viral load and CD4 cell counts. Subjects and methods: All cases of influenza occurring in **HIV**-infected individuals over 3 yr at a large county hospital were reviewed. For the year 1997-1998, data on all **HIV** clinic **patients** who were vaccinated for influenza were recorded prospectively. In order to assess the effects of influenza infection (Group I) and vaccination (Group II) on **HIV** viral load and CD4 cell counts, values from before and after influenza infection or vaccination were compared to each other and to a matched control group not vaccinated and without influenza infection (Group III). Results: Forty-three cases of influenza were diagnosed. Pre- and post-influenza viral load in Group I was not significantly different: 3.34 vs. 3.49 log copies/mL (P=0.36). Viral load was unchanged in 22 of 37 **patients**, increased in ten ***patients*** and decreased in five **patients**. Similarly, pre- and post-vaccination viral load in Group II was not significantly different: 3.52 vs. 3.66 log copies/mL (P=0.12). Thirty-four of 47 **patients** who received **influenza vaccine** had no significant change in viral load-viral load increased in ten **patients** and decreased in three **patients**. No significant CD4 cell count changes were noted following influenza infection or vaccination. In contrast, Group III ***patients*** experienced a small decline in viral load from 4.23 to 3.39 log copies/mL, P<0.05, while there was a trend towards an increase in CD4 cell counts (P=0.06). Conclusions: Following influenza infection or vaccination, most **patients** did not have a significant increase in **HIV** viral load or decrease in CD4 cell count.

REFERENCE COUNT: 27 THERE ARE 27 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 3 OF 9 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2002:288203 CAPLUS
DOCUMENT NUMBER: 137:184264
TITLE: Genotypic analysis of plasma **HIV**-1 RNA after influenza vaccination of **patients** with previously undetectable viral loads
AUTHOR(S): Kolber, Michael A.; Gabr, Abdel H.; De La Rosa, Abel; Glock, Jonathan A.; Jayaweera, Dushyantha; Miller, Nancimae; Dickinson, Gordon M.
CORPORATE SOURCE: Division of Infectious Diseases, University of Miami School of Medicine, Miami, FL, USA
SOURCE: AIDS (London, United Kingdom) (2002), 16(4), 537-542
CODEN: AIDSET; ISSN: 0269-9370
PUBLISHER: Lippincott Williams & Wilkins
DOCUMENT TYPE: Journal
LANGUAGE: English

ABSTRACT:
Objective: In this study we evaluated the possibility that plasma viral load elevations secondary to influenza vaccination in **HIV**-1-seropos. individuals with previously undetectable viral loads (< 200 copies/mL) could develop resistance-bearing mutations in the viral reverse transcriptase (RT) and protease regions. Methods: Thirty-four **patients** with undetectable viral burdens on highly active antiretroviral therapy (HAART) were evaluated for elevations in plasma viral load 2 and 4 wk post-influenza vaccination. Plasma from **patients** whose viral load increased after vaccination was subject to genotypic resistance anal. by the line probe assay (LiPA) to determine whether primary resistance-bearing mutations developed during this period and at follow-up. Stored plasma was used to evaluate whether RT or protease mutations existed pre-vaccination. Results: Seven out of 34 ***patients*** were found to experience elevations in their viral load after influenza vaccination. Two of the **patients** revealed evidence of primary RT or protease mutations not demonstrated in earlier pre-vaccination samples. One **patient** failed therapy after vaccination, and one ***patient*** revealed post-vaccination viral load elevations that eventually led to the progressive development of primary zidovudine mutations. Conclusion: Evidence is presented that supports the contention that a small subset of **patients** who experience viral load elevations after influenza vaccination can develop mutational changes in the RT region of the viral genome either acutely or after a failure of the viral load to return to undetectable levels.

REFERENCE COUNT: 25 THERE ARE 25 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 4 OF 9 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2001:402648 CAPLUS
DOCUMENT NUMBER: 135:255737
TITLE: Influenza vaccination of human immunodeficiency virus 1-infected patients receiving antiretroviral therapy
AUTHOR(S): Banic, S.; Koren, S.; Tomazic, J.; Vidmar, L.; Ihan, A.; Poljak, M.; Avsic-Zupanc, A.
CORPORATE SOURCE: Institute of Microbiology and Immunology, University of Ljubljana, Ljubljana, Slovenia
SOURCE: Acta Virologica (English Edition) (2001), 45(1), 39-44
CODEN: AVIRA2; ISSN: 0001-723X
PUBLISHER: Slovak Academic Press Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English
ABSTRACT:
In 13 human immunodeficiency virus 1 (**HIV**-1) infected ***patients*** receiving a highly active antiretroviral therapy (HAART) annual influenza vaccination was conducted. It was hoped that HAART would prevent a post-vaccination increase in **HIV**-1 load and potential adverse effects. Only two **patients** had an increased viral load on day 14 post vaccination (p.v.). At 6 mo p.v., the majority of the ***patients*** had a significantly increased CD4 cell count and a significantly decreased viral load. This indicates that HAART can protect ***patients*** from adverse consequences of influenza vaccination. The production of antibodies to the influenza A and B viruses in the **HIV** -infected **patients** was substantially lower than that in healthy persons. The authors propose that **HIV**-pos. **patients** receiving HAART should be subjected to annual influenza vaccination.

REFERENCE COUNT: 32 THERE ARE 32 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 5 OF 9 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2001:283427 CAPLUS
DOCUMENT NUMBER: 135:209541
TITLE: Influenza virus-stimulated generation of anti-human

immunodeficiency virus (HIV) activity after influenza vaccination in HIV-infected individuals and healthy control subjects

AUTHOR(S): Pinto, Ligia A.; Blazevic, Vesna; Anderson, Stephanie A.; Venzon, David J.; Mac Trubey, C.; Rowe, Thomas; Katz, Jacqueline M.; Liewehr, David; Dolan, Matthew J.; Shearer, Gene M.

CORPORATE SOURCE: Experimental Immunology Branch, National Institutes of Health, Bethesda, MD, 20892, USA

SOURCE: Journal of Infectious Diseases (2001), 183(7), 1000-1008
CODEN: JIDIAQ; ISSN: 0022-1899

PUBLISHER: University of Chicago Press

DOCUMENT TYPE: Journal

LANGUAGE: English

ABSTRACT:

Influenza virus stimulation of leukocytes induces factors that suppress human immunodeficiency virus (**HIV**). The effect of influenza vaccination on influenza-induced anti-**HIV** activity was investigated. ***Influenza*** **vaccine** was administered to 25 control subjects and 20 **HIV**-infected **patients**. Antiviral activity, cytokine production, and influenza antibodies were assessed before and 2 and 6 wk after vaccination. Immunization induced a statistically significant increase in antiviral activity in control subjects but not in **HIV** ***patients*** , although the number of **patients** who generated this activity increased. Pre- and postvaccination levels of anti-**HIV** activity were significantly lower in **HIV patients**. Vaccination of control subjects and **HIV patients** induced increases in production of interleukin-2 and interferon (IFN)-$\gamma$, but not of IFN-$\alpha$. Virus load and CD4 cell counts were not significantly altered. This study demonstrates impairment of antiviral activity in **HIV** ***patients*** , in addition to deficiencies in antibody responses and cytokine production In summary, influenza vaccination can induce an increase in multiple immunol. components that remained impaired in **HIV patients**.

REFERENCE COUNT: 39 THERE ARE 39 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 6 OF 9 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2000:588129 CAPLUS

DOCUMENT NUMBER: 134:40691

TITLE: Humoral immune response to influenza vaccination in patients from high risk groups

AUTHOR(S): Brydak, Lidia B.; Machala, Magdalena

CORPORATE SOURCE: National Influenza Center WHO, Department of Virology, National Institute of Hygiene, Warsaw, Pol.

SOURCE: Drugs (2000), 60(1), 35-53
CODEN: DRUGAY; ISSN: 0012-6667

PUBLISHER: Adis International Ltd.

DOCUMENT TYPE: Journal; General Review

LANGUAGE: English

ABSTRACT:

A review with 111 refs. Influenza is one of the most common respiratory diseases. Infections caused by this virus may be very serious and can lead to severe complications. So far, the most effective method of protection against influenza is annual vaccination. The Advisory Committee on Immunization Practices recommends vaccination against influenza for some groups of people. Unfortunately, in spite of these clear indications, a large number of ***patients*** are not vaccinated. This article reviews the current scientific literature on immunol. response to influenza vaccination in ***patients*** who are at especially high risk for serious post-influenza complications and for whom immunization against this virus is strongly recommended. Results of studies carried out in Poland and other countries in elderly people, in **patients** with pulmonary diseases, renal diseases,

diabetes mellitus, cancer and hemophilia, and in those with **HIV** infection are presented. In this review, we focus on the immune response to hemagglutinin. There are some discrepancies between the results of studies carried out by different authors in high risk groups of **patients**. Some investigations indicated poorer humoral response to **influenza** ***vaccine*** in these groups, while others showed responses comparable to those in healthy individuals. These differences may be explained by differences in types and stages of the chronic diseases, in the treatment and composition of **influenza vaccines**, and also **patients'** ages, vaccination history and prevaccination antibody titers. ***Influenza*** **vaccines** are well tolerated in high risk ***patients*** , and all adverse reactions are generally mild and similar to those observed in healthy people. Although, in some cases, immunol. responses to influenza vaccination measured in the whole study group were poor, there were some individual **patients** who, after vaccination, developed antihaemaglutinin antibody titers which are considered to give protection against the infection or contribute to a milder course of the disease.

REFERENCE COUNT: 111 THERE ARE 111 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 7 OF 9 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1999:613671 CAPLUS
DOCUMENT NUMBER: 131:223479
TITLE: Anti-HIV combination comprising hydroxyurea, ddI, and a protease inhibitor
INVENTOR(S): Lisziwiewicz, Julianna; Lori, Franco
PATENT ASSIGNEE(S): USA
SOURCE: PCT Int. Appl., 41 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| WO 9947146 | A1 | 19990923 | WO 1998-US5092 | 19980317 |
| W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM | | | | |
| RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG | | | | |
| AU 9867611 | A1 | 19991011 | AU 1998-67611 | 19980317 |

PRIORITY APPLN. INFO.: WO 1998-US5092 19980317
ABSTRACT:
The combination of hydroxyurea, 2',3'-dideoxyinosine (ddI) and a protease inhibitor is capable of reducing the presence of reverse transcriptase-dependent virus in both plasma and lymph nodes, as well as seminal fluids, the typical mode of transmission of the disease. An advantage of the present invention is that it can be used very early after infection to prevent seroconversion of a person infected with **HIV**, as well as after seroconversion. The combination has relatively low toxicity, and may be suitable as a long-term treatment for chronic infection for a wide range of individuals. In addition to reducing the viral load in plasma and in the lymph nodes to undetectable levels, the present invention has been shown to inhibit viral rebound after treatment is stopped. A method of activating quiescent cells harboring integrated viral DNA and controlled conditions for the purpose of eliminating the integrated viral DNA by using vaccine selected from the group comprising **HIV**-1, hepatitis A and B, influenza and polio is

also provided. **Patients** treated with the combination of hydroxyurea (5-8 mg/kg three times a day), ddI (200 mg twice a day), and Indinavir (800 mg three times a day) during the acute primary phase of infection resulted in a very potent, long lasting block of **HIV**-1 replication in the blood, lymph nodes and semen and in the restoration of the immune system. In one ***patient*** , the treatment was suspended without substantial viral rebound or seroconversion.

REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 8 OF 9 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1999:5258 CAPLUS
DOCUMENT NUMBER: 130:208585
TITLE: Restored humoral immune response to influenza vaccination in HIV-infected adults treated with highly active antiretroviral therapy
AUTHOR(S): Kroon, Frank P.; Rimmelzwaan, Guus F.; Roos, Marijke T. L.; Osterhaus, Ab D. M. E.; Hamann, Dorte; Miedema, Frank; Van Dissel, Jaap T.
CORPORATE SOURCE: Department of Infectious Diseases, Leiden University Medical Center, Leiden, 2300 RC, Neth.
SOURCE: AIDS (London) (1998), 12(17), F217-F223
CODEN: AIDSET; ISSN: 0269-9370
PUBLISHER: Lippincott Williams & Wilkins
DOCUMENT TYPE: Journal
LANGUAGE: English
ABSTRACT:
Highly active antiretroviral therapy (HAART) effectively suppresses replication of **HIV** and is accompanied by an increase in CD4+ T lymphocytes. Whether the increase in CD4+ T lymphocytes in the blood is a reflection of a reconstitution of the immune functions is unknown. We investigated the recovery of the humoral immune response during HAART after immunization with T-cell-dependent **influenza vaccine**. Forty-one men and three women infected with **HIV** and treated with HAART, and 15 healthy hospital staff members were immunized with trivalent influenza subunit vaccine. Antibody titers were determined by hemagglutination inhibiting assay in sera obtained before and 30 days after immunization. Lymphocyte subsets were determined in blood samples taken at the time of vaccination. In all **HIV**-infected individuals, treatment with HAART caused a median reduction of 2.3 log10 in **HIV**-1 load. The median increase of CD4+ T lymphocytes after initiation of HAART was 170 + 106/l. The antibody response to influenza antigens was proportional to the number of memory CD4+ T lymphocytes in the blood at the time of vaccination. When a group of **patients** and healthy controls with approx. similar CD4+ T-lymphocyte counts were considered, the antibody titers after vaccination for influenza strain H1N1 and influenza B did not differ between **patients** and controls (P = 0.12). Vaccination of ***patients*** with a CD4+ T-lymphocyte count of < 200 + 106/l (mean 85 + 106/l) before the start of HAART and with a mean of 282 + 106/l CD4+ T lymphocytes at the time of vaccination as a result of HAART, demonstrated a substantial antibody response whereas **patients** with a CD4+ T lymphocyte count of < 200 + 106/l (mean 56 + 106/l) not treated with HAART (historical controls), and vaccinated with a similar ***influenza*** **vaccine**, failed to induce an antibody response. The present findings demonstrate a recovery of the humoral immune response to influenza antigens in **HIV**-infected individuals treated with HAART. This indicates that functional improvement of antigen specific CD4+ T helper cell responses occurs.

REFERENCE COUNT: 21 THERE ARE 21 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 9 OF 9 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1996:255924 CAPLUS

DOCUMENT NUMBER: 125:7887
TITLE: Antibody response to tetravalent influenza subunit vaccine in patients infected with human immunodeficiency virus type 1
AUTHOR(S): Schneider, Margriet M. E.; Sprenger, Marc J. W.; Hoepelman, I. M.; van der Graaf, Yolanda; Borleffs, Jan C. C.
CORPORATE SOURCE: Department of Internal Medicine, University Hospital Utrecht, Utrecht, 3508 GA, Neth.
SOURCE: International Journal of Antimicrobial Agents (1996), 6(4), 195-200
CODEN: IAAGEA; ISSN: 0924-8579
PUBLISHER: Elsevier
DOCUMENT TYPE: Journal
LANGUAGE: English
ABSTRACT:
The capacity of **patients** infected with human immunodeficiency virus ( ***HIV*** ) to develop an adequate antibody response to influenza vaccination in relation to the CD4 cell count has been studied in a prospective study. A total of 73 subjects (54 **HIV**-infected **patients** and 19 healthy control persons) were vaccinated with influenza subunit vaccine containing 15 μg hemagglutinin of each of the following strains: A/Beijing/353/89(H3N2), A/Singapore/6/86(H1N1), B/Panama/45/90, and B/Beijing/1/87. Hemagglutinin inhibition (HI) antibody titers were determined prior to vaccination, 3 wk afterwards, and at the end of the influenza season. The percentage of subjects with HI antibody titers above the assumed protective level was significantly lower in the **HIV**-infected **patients** for all 4 vaccine strains compared with those in the control group (7-26% and 42-74%, resp.). There was an association between CD4 cell count and antibody response to the B/Panama strain only. The serol. response to tetravalent subunit **influenza vaccine** is severely impaired in the majority of **HIV**-infected **patients** compared with control subjects. The results of this study challenges the recommendation to vaccinate ***HIV*** -infected **patients**.

```
=> inactivation
         87111 INACTIVATION
           326 INACTIVATIONS
L31      87235 INACTIVATION
                 (INACTIVATION OR INACTIVATIONS)

=> L31 and L30
L32          0 L31 AND L30

=> propiolactone
          2560 PROPIOLACTONE
           243 PROPIOLACTONES
L33       2620 PROPIOLACTONE
                 (PROPIOLACTONE OR PROPIOLACTONES)

=> L33 and L31
L34        140 L33 AND L31

=> virus and L34
        295331 VIRUS
         63533 VIRUSES
        306022 VIRUS
                 (VIRUS OR VIRUSES)
L35        119 VIRUS AND L34

=> immunization and l119
L119 NOT FOUND
The L-number entered could not be found.  To see the definition
of L-numbers, enter DISPLAY HISTORY at an arrow prompt (=>).

=> immunization and L35
         35250 IMMUNIZATION
          1534 IMMUNIZATIONS
         35822 IMMUNIZATION
                 (IMMUNIZATION OR IMMUNIZATIONS)
L36          6 IMMUNIZATION AND L35

=> composition and l35
        612611 COMPOSITION
        269555 COMPOSITIONS
        877079 COMPOSITION
                 (COMPOSITION OR COMPOSITIONS)
       1266773 COMPN
        506151 COMPNS
       1550041 COMPN
                 (COMPN OR COMPNS)
       1982717 COMPOSITION
                 (COMPOSITION OR COMPN)
L37          6 COMPOSITION AND L35

=> vaccine and L35
         41849 VACCINE
         42618 VACCINES
         52646 VACCINE
                 (VACCINE OR VACCINES)
L38         47 VACCINE AND L35

=> patients and L38
        426247 PATIENTS
             1 PATIENTSES
        426247 PATIENTS
                 (PATIENTS OR PATIENTSES)
L39          2 PATIENTS AND L38
```

=> DIS L39 1- IBIB IABS

```
=> "patients (l) immunodeficient"
         426136 "PATIENTS"
              1 "PATIENTSES"
         426136 "PATIENTS"
                  ("PATIENTS" OR "PATIENTSES")
        1321945 "L"
           2732 "IMMUNODEFICIENT"
              1 "IMMUNODEFICIENTS"
           2732 "IMMUNODEFICIENT"
                  ("IMMUNODEFICIENT" OR "IMMUNODEFICIENTS")
L1            0 "PATIENTS (L) IMMUNODEFICIENT"
                  ("PATIENTS"(W)"L"(W)"IMMUNODEFICIENT")

=> patients (l) immune (l) suppressive
         426136 PATIENTS
              1 PATIENTSES
         426136 PATIENTS
                  (PATIENTS OR PATIENTSES)
         159686 IMMUNE
              6 IMMUNES
         159688 IMMUNE
                  (IMMUNE OR IMMUNES)
          13117 SUPPRESSIVE
              8 SUPPRESSIVES
          13122 SUPPRESSIVE
                  (SUPPRESSIVE OR SUPPRESSIVES)
L2          194 PATIENTS (L) IMMUNE (L) SUPPRESSIVE

=> vaccination
          12939 VACCINATION
            646 VACCINATIONS
L3        13170 VACCINATION
                  (VACCINATION OR VACCINATIONS)

=> L3 and L2
L4            5 L3 AND L2

=> immunization
          35247 IMMUNIZATION
           1534 IMMUNIZATIONS
L5        35819 IMMUNIZATION
                  (IMMUNIZATION OR IMMUNIZATIONS)

=> L2 and L5
L6            6 L2 AND L5

=> cancer
         208115 CANCER
          29572 CANCERS
L7       216245 CANCER
                  (CANCER OR CANCERS)

=> L7 and L5
L8         1815 L7 AND L5

=> inactivated (w) virus
          46440 INACTIVATED
         295288 VIRUS
          63526 VIRUSES
         305977 VIRUS
                  (VIRUS OR VIRUSES)
L9          615 INACTIVATED (W) VIRUS
```

```
=> L8 and L9
L10           0 L8 AND L9

=> influenza (W) vaccine
          18165 INFLUENZA
              6 INFLUENZAS
          18167 INFLUENZA
                  (INFLUENZA OR INFLUENZAS)
          41841 VACCINE
          42597 VACCINES
          52626 VACCINE
                  (VACCINE OR VACCINES)
L11         803 INFLUENZA (W) VACCINE

=> L8 and L11
L12           6 L8 AND L11

=> measles (w) vaccine
           3174 MEASLES
          41841 VACCINE
          42597 VACCINES
          52626 VACCINE
                  (VACCINE OR VACCINES)
L13         207 MEASLES (W) VACCINE

=> L8 and L11
L14           6 L8 AND L11

=> HIV (W) vaccine
          53432 HIV
             85 HIVS
          53443 HIV
                  (HIV OR HIVS)
          41841 VACCINE
          42597 VACCINES
          52626 VACCINE
                  (VACCINE OR VACCINES)
L15         613 HIV (W) VACCINE

=> L8 and L15
L16           1 L8 AND L15

=> herpes (l) vaccine
          22207 HERPES
          41841 VACCINE
          42597 VACCINES
          52626 VACCINE
                  (VACCINE OR VACCINES)
L17         981 HERPES (L) VACCINE

=> L17 and L8
L18           8 L17 AND L8

=> flavivirus (l) immunization
            992 FLAVIVIRUS
            512 FLAVIVIRUSES
           1175 FLAVIVIRUS
                  (FLAVIVIRUS OR FLAVIVIRUSES)
          35247 IMMUNIZATION
           1534 IMMUNIZATIONS
          35819 IMMUNIZATION
                  (IMMUNIZATION OR IMMUNIZATIONS)
L19          53 FLAVIVIRUS (L) IMMUNIZATION
```

```
=> L8 and L19
L20           0 L8 AND L19

=> " simian immunodeficient virus"
          13081 "SIMIAN"
             49 "SIMIANS"
          13102 "SIMIAN"
                  ("SIMIAN" OR "SIMIANS")
           2732 "IMMUNODEFICIENT"
              1 "IMMUNODEFICIENTS"
           2732 "IMMUNODEFICIENT"
                  ("IMMUNODEFICIENT" OR "IMMUNODEFICIENTS")
         295288 "VIRUS"
          63526 "VIRUSES"
         305977 "VIRUS"
                  ("VIRUS" OR "VIRUSES")
L21           0 " SIMIAN IMMUNODEFICIENT VIRUS"
                  ("SIMIAN"(W)"IMMUNODEFICIENT"(W)"VIRUS")

=> SIV (s) immunization
           2793 SIV
             80 SIVS
           2803 SIV
                  (SIV OR SIVS)
          35247 IMMUNIZATION
           1534 IMMUNIZATIONS
          35819 IMMUNIZATION
                  (IMMUNIZATION OR IMMUNIZATIONS)
L22         138 SIV (S) IMMUNIZATION

=> L8 and L22
L23           0 L8 AND L22

=> rabies (s) vaccine
           2156 RABIES
          41841 VACCINE
          42597 VACCINES
          52626 VACCINE
                  (VACCINE OR VACCINES)
L24         667 RABIES (S) VACCINE

=> L8 and L24
L25           5 L8 AND L24

=> inactivated (w) influenza (w) vaccine
          46440 INACTIVATED
          18165 INFLUENZA
              6 INFLUENZAS
          18167 INFLUENZA
                  (INFLUENZA OR INFLUENZAS)
          41841 VACCINE
          42597 VACCINES
          52626 VACCINE
                  (VACCINE OR VACCINES)
L26          62 INACTIVATED (W) INFLUENZA (W) VACCINE

=> L8 and L26
L27           0 L8 AND L26

=> "HIV infected"
          53432 "HIV"
             85 "HIVS"
          53443 "HIV"
                  ("HIV" OR "HIVS")
```

```
        123709 "INFECTED"
             1 "INFECTEDS"
        123709 "INFECTED"
                 ("INFECTED" OR "INFECTEDS")
L28       5456 "HIV INFECTED"
                 ("HIV"(W)"INFECTED")

=> L28 and L26
```

L39 ANSWER 1 OF 2 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1998:50397 CAPLUS
DOCUMENT NUMBER: 128:126805
TITLE: Characterization of highly purified, inactivated HIV-1 particles isolated by anion exchange chromatography
AUTHOR(S): Richieri, Steven P.; Bartholomew, Richard; Aloia, Roland C.; Savary, Jay; Gore, Richard; Holt, John; Ferre, Francois; Musil, Roy; Tian, H. R.; Trauger, Richard; Lowry, Peter; Jensen, Fred; Carlo, Dennis J.; Maigetter, Robert Z.; Prior, Christopher P.
CORPORATE SOURCE: The Immune Response Corporation, King of Prussia, PA, 19406, USA
SOURCE: Vaccine (1998), 16(2/3), 119-129
CODEN: VACCDE; ISSN: 0264-410X
PUBLISHER: Elsevier Science Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English
ABSTRACT:
This report characterizes inactivated, gp120 depleted, HIV-1 particles purified by an anion exchange chromatog. production process. This antigen formulated with incomplete Freund's adjuvant constitutes Remune, which is being evaluated in a phase III clin. endpoint trial to determine the effect of this immune-based therapy on clin. progression of HIV-1 seropos. **patients**. Multiple production lots of the inactivated HIV-1 antigen strain HZ321, isolated by anion exchange chromatog., exhibit purity of >95% by gel filtration. These findings are corroborated by thin section electron microscopy showing a homogeneous field of intact particles. Analyses of the purified **virus** particles for protein, lipid, carbohydrate and RNA show structural retention of the envelope proteins, lipid bilayer and core components after large scale processing. The qual. identification of at least 85% of total HIV-1 protein is determined by ELISA, Western blot, HPLC and amino acid sequencing analyses. Quant. values are assigned to 50% of these proteins. The data confirm the presence of virally encoded proteins p6, p7, p15, p17, p24, p32, p39Gag, gp41, pp55Gag, p66/51, Vpr, Vif and Nef. Excellent consistency between production lots and equivalency to HIV-1 prepns. purified by sucrose d. gradient sedimentation has been established for protein and lipid composition, and overall purity. These findings further establish that non-viral encoded proteins and lipids are integral structural components of the intact virion and are not contaminants unique to a particular isolation method. The data confirm the presence of multicomponent antigens in the viral particles for stimulating a broad HIV-1 specific immune response. Finally, the work demonstrates that the two **inactivation** procedures (β- **propiolactone** and γ irradiation), which achieve efficient viral **inactivation** meeting US FDA guidelines, do not damage the protein antigens of the viral particles.

L36 ANSWER 5 OF 6 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1969:94982 CAPLUS
DOCUMENT NUMBER: 70:94982
TITLE: Immunogenic activity of human influenza **virus** inactivated by various procedures and administered subcutaneously or intranasally to the mouse
AUTHOR(S): Cherby, Jean; Werner, Georges H.
CORPORATE SOURCE: Lab. Rech., Vitry-sur-Seine, Fr.
SOURCE: Comptes Rendus des Seances de l'Academie des Sciences, Serie D: Sciences Naturelles (1969), 268(8), 1232-5
CODEN: CHDDAT; ISSN: 0567-655X
DOCUMENT TYPE: Journal
LANGUAGE: French
ABSTRACT:

The immunogenic activity of inactivated human influenza **virus** in mice depended on the viral strain, method of **inactivation**, and the route of administration. If the **virus** were inactivated with Et2O, less of the inactivated **virus** was required for **immunization** intranasally than s.c., the opposite being observed with **virus** inactivated by HCHO or β- **propiolactone**. Antigen obtained by the action of isopropyl oxide was less immunogenic than that obtained by Et2O treatment. Influenza **virus** strain Japan/305/57, inactivated by Et2O, immunized the same percent of mice when administered either intranasally or s.c. With strain B/Lee/40, the intranasal route of Et2O-inactivated ***virus*** administration immunized a larger percent of animals than did the s.c. route.

L12 ANSWER 4 OF 6 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2000:588129 CAPLUS
DOCUMENT NUMBER: 134:40691
TITLE: Humoral immune response to influenza vaccination in patients from high risk groups
AUTHOR(S): Brydak, Lidia B.; Machala, Magdalena
CORPORATE SOURCE: National Influenza Center WHO, Department of Virology, National Institute of Hygiene, Warsaw, Pol.
SOURCE: Drugs (2000), 60(1), 35-53
CODEN: DRUGAY; ISSN: 0012-6667
PUBLISHER: Adis International Ltd.
DOCUMENT TYPE: Journal; General Review
LANGUAGE: English
ABSTRACT:

A review with 111 refs. Influenza is one of the most common respiratory diseases. Infections caused by this virus may be very serious and can lead to severe complications. So far, the most effective method of protection against influenza is annual vaccination. The Advisory Committee on ***Immunization*** Practices recommends vaccination against influenza for some groups of people. Unfortunately, in spite of these clear indications, a large number of patients are not vaccinated. This article reviews the current scientific literature on immunol. response to influenza vaccination in patients who are at especially high risk for serious post-influenza complications and for whom ***immunization*** against this virus is strongly recommended. Results of studies carried out in Poland and other countries in elderly people, in patients with pulmonary diseases, renal diseases, diabetes mellitus, ***cancer*** and hemophilia, and in those with HIV infection are presented. In this review, we focus on the immune response to hemagglutinin. There are some discrepancies between the results of studies carried out by different authors in high risk groups of patients. Some investigations indicated poorer humoral response to **influenza vaccine** in these groups, while others showed responses comparable to those in healthy individuals. These differences may be explained by differences in types and stages of the chronic diseases, in the treatment and composition of **influenza** ***vaccines*** , and also patients' ages, vaccination history and prevaccination antibody titers. **Influenza vaccines** are well tolerated in high risk patients, and all adverse reactions are generally mild and similar to those observed in healthy people. Although, in some cases, immunol. responses to influenza vaccination measured in the whole study group were poor, there were some individual patients who, after vaccination, developed antihaemaglutinin antibody titers which are considered to give protection against the infection or contribute to a milder course of the disease.

L25 ANSWER 5 OF 5 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1996:632302 CAPLUS
DOCUMENT NUMBER: 125:294048
TITLE: Genetically engineered poxviruses for recombinant gene expression, vaccination, and safety
AUTHOR(S): Moss, Bernard
CORPORATE SOURCE: Lab. Viral Diseases, Natl. Inst. Health, Bethesda, MD, 20892-0445, USA
SOURCE: Proceedings of the National Academy of Sciences of the United States of America (1996), 93(21), 11341-11348
CODEN: PNASA6; ISSN: 0027-8424
PUBLISHER: National Academy of Sciences
DOCUMENT TYPE: Journal; General Review
LANGUAGE: English
ABSTRACT:
A review with 180 refs. Vaccinia virus, no longer required for ***immunization*** against smallpox, now serves as a unique vector for expressing genes within the cytoplasm of mammalian cells. As a research tool, recombinant vaccinia viruses are used to synthesize and analyze the structure-function relationships of proteins, determine the targets of humoral and cell-mediated immunity, and investigate the types of immune response needed for protection against specific infectious diseases and **cancer**. The ***vaccine*** potential of recombinant vaccinia virus has been realized in the form of an effective oral wild-life **rabies vaccine**, although no product for humans has been licensed. A genetically altered vaccinia virus that is unable to replicate in mammalian cells and produces diminished cytopathic effects retains the capacity for high-level gene expression and immunogenicity while promising exceptional safety for laboratory workers and potential vaccine recipients.

L37 ANSWER 4 OF 6 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1991:603169 CAPLUS
DOCUMENT NUMBER: 115:203169
TITLE: Principles of selective **inactivation** of viral genome. V. Rational selection of conditions for **inactivation** of the viral suspension infectivity to a given extent by the action of β-**propiolactone**
AUTHOR(S): Budovskii, E. I.; Zalesskaya, M. A.
CORPORATE SOURCE: N. D. Zelinskii Inst. Org. Chem., Moscow, 117913, USSR
SOURCE: **Vaccine** (1991), 9(5), 319-25
CODEN: VACCDE; ISSN: 0264-410X
DOCUMENT TYPE: Journal
LANGUAGE: English
ABSTRACT:
The influence of the initial concentration of β- **propiolactone**, the ***composition*** of the solution, temperature, and pH on the bacteriophage MS2 infectivity ***inactivation*** kinetics has been studied. Rate consts. have been determined for the infectivity **inactivation** and for the change in the concentration (the consumption) of the reactant under **inactivation** conditions. These consts. have been shown to permit a sufficiently precise description of the phage MS2 survival curves under the action of β- **propiolactone**. These data have been used to put forward a kinetic approach for the rational determination of conditions for **inactivation** of the viral infectivity to a required extent with agents whose concentration decreases during **inactivation** as a result of hydrolysis and reactions involving the medium components.

This file contains CAS Registry Numbers for easy and accurate substance identification.

```
=> intact (w) virus
        158517 INTACT
            26 INTACTS
        158522 INTACT
                 (INTACT OR INTACTS)
        295800 VIRUS
         63624 VIRUSES
        306512 VIRUS
                 (VIRUS OR VIRUSES)
L1         630 INTACT (W) VIRUS

=> treatment and L1
       1879258 TREATMENT
        173040 TREATMENTS
       1972750 TREATMENT
                 (TREATMENT OR TREATMENTS)
L2         114 TREATMENT AND L1

=> "immunodeficient or immunodefeciency"
          2740 "IMMUNODEFICIENT"
             1 "IMMUNODEFICIENTS"
          2740 "IMMUNODEFICIENT"
                 ("IMMUNODEFICIENT" OR "IMMUNODEFICIENTS")
             0 "OR"
           974 "ORS"
           974 "OR"
                 ("OR" OR "ORS")
             1 "IMMUNODEFECIENCY"
L3           0 "IMMUNODEFICIENT OR IMMUNODEFECIENCY"
                 ("IMMUNODEFICIENT"(W)"OR"(W)"IMMUNODEFECIENCY")

=> "HIV patients"
         53574 "HIV"
            85 "HIVS"
         53585 "HIV"
                 ("HIV" OR "HIVS")
        427144 "PATIENTS"
             1 "PATIENTSES"
        427144 "PATIENTS"
                 ("PATIENTS" OR "PATIENTSES")
L4         556 "HIV PATIENTS"
                 ("HIV"(W)"PATIENTS")

=> L4 and L2
L5           0 L4 AND L2

=> "immunodefecienct"
             0 "IMMUNODEFECIENCT"
L6           0 "IMMUNODEFECIENCT"

=> "immunodefecient pateints"
             0 "IMMUNODEFECIENT"
            17 "PATEINTS"
L7           0 "IMMUNODEFECIENT PATEINTS"
                 ("IMMUNODEFECIENT"(W)"PATEINTS")

=> "HIV positive"
         53574 "HIV"
            85 "HIVS"
         53585 "HIV"
```

```
                ("HIV" OR "HIVS")
         69031 "POSITIVE"
          2831 "POSITIVES"
         71575 "POSITIVE"
                ("POSITIVE" OR "POSITIVES")
        483829 "POS"
          3794 "POSES"
        487507 "POS"
                ("POS" OR "POSES")
        526389 "POSITIVE"
                ("POSITIVE" OR "POS")
L8        1184 "HIV POSITIVE"
                ("HIV"(W)"POSITIVE")

=> L8 and l2
L9           0 L8 AND L2

=> "HIV infected"
         53574 "HIV"
            85 "HIVS"
         53585 "HIV"
                ("HIV" OR "HIVS")
        123924 "INFECTED"
             1 "INFECTEDS"
        123924 "INFECTED"
                ("INFECTED" OR "INFECTEDS")
L10       5473 "HIV INFECTED"
                ("HIV"(W)"INFECTED")

=> L10 and L2
L11          0 L10 AND L2

=> "immunodefeciency"
L12          1 "IMMUNODEFECIENCY"

=> AIDS
L13      51516 AIDS

=> L13 and L2
L14          0 L13 AND L2

=> "HIV infected"
         53574 "HIV"
            85 "HIVS"
         53585 "HIV"
                ("HIV" OR "HIVS")
        123924 "INFECTED"
             1 "INFECTEDS"
        123924 "INFECTED"
                ("INFECTED" OR "INFECTEDS")
L15       5473 "HIV INFECTED"
                ("HIV"(W)"INFECTED")

=> L15 and L2
L16          0 L15 AND L2

=> L2 and l15
L17          0 L2 AND L15
```